

Application No. 10/656,324
AMENDMENT C dated April 3, 2006
Reply to Office Action of November 2, 2005

AMENDMENTS TO THE CLAIMS

Listing of Claims:

WHAT IS CLAIMED IS:

1. (Currently Amended) A micro-adjusting device for [[the]] an angle stop plank of a planer comprising:

a wood conveying table, said wood conveying table connected with a holding frame and said holding frame connected with a stop plank, said stop plank positioned at one side on [[the]] a top side of said wood conveying table for positioning a wood material, and further comprising:

a hand wheel unit composed of a hand wheel and a worm, said worm actuated by said hand wheel to rotate, and said worm being inserted in said holding frame;

a transmission rod inserted in said holding frame, said transmission rod having one end formed with a worm wheel, said worm wheel meshed with said worm of said hand wheel unit, said transmission rod having the other end formed with a transmission gear;

an upper connecting rod having its front end pivotally connected with [[the]] a rear wall of said stop plank, said upper connecting rod having its rear end formed with a guiding groove, said guiding groove having its upper edge provided with multiple teeth, said multiple teeth meshed with said transmission gear of said transmission rod;

a lower connecting rod having its rear end pivotally connected with said holding frame, said lower connecting rod having its front end pivotally connected with said stop plank; and

said hand wheel adapted to be turned to actuate said upper connecting rod to move back and forth through relative to said worm, said upper connecting rod

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pulling or pushing said stop plank, said stop plank able to be freely adjusted and positioned at a required angle by [[the]] turning fulcrums respectively formed [[at]] by the front and the rear end pivotal [[joint]] connections of said lower connecting rod.

2. (Previously Presented) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said holding frame has an accommodating space formed in the center for receiving said upper connecting rod therein and a locking handle inserted in the opposite side of said transmission rod, said locking handle having its end connected to a lock, said lock fitted in the opposite side of said guiding groove of said upper connecting rod, said lock able to tighten or release said upper connecting rod when said locking handle is actuated.

3. (Previously Presented) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said holding frame is formed integral with a stop base protruding upward on one side generally abutting said upper connecting rod, and said stop base has a stop block pivotally provided thereon, said stop block able to be turned inward and positioned on said upper connecting rod in due time, said upper connecting rod provided with a bolt base protruding upward at a preset part on the top side and a stop bolt connected to said bolt base, said stop plank able to be quickly adjusted and positioned at a right angle when said stop bolt and said stop block push against each other.

4. (Previously Presented) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said lower connecting rod is shaped like a plate having a stop bolt positioned at a preset location on the top side, said stop bolt pushing against a preset part on the rear wall of said stop plank when said stop

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plank is adjusted, thus said stop plank able to be quickly adjusted and positioned at an exterior angle of 45 degrees.

5. (Previously Presented) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said upper connecting rod has a stop bolt positioned at a preset location on the top side, said stop bolt exactly pushing against a preset part on the top side of said lower connecting rod when said stop plank is adjusted, thus said stop plank able to be quickly adjusted and positioned at an interior angle of 45 degrees.

6. (Previously Presented) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said upper connecting rod has the top side above said guiding groove provided with a graduated ruler having angle graduations marked thereon, and said holding frame has its top side provided with an index hand pointing to said graduated ruler to indicate a positioning angle of said stop plank after said stop plank is adjusted.

7. (Currently Amended) The micro-adjusting device for the angle stop plank of a planer as claimed in Claim 1, wherein said multiple teeth in said guiding groove of said upper connecting rod form a rack directly fixed in said guiding groove from [[the]] an upper side of said upper connecting rod.

8. (Currently Amended) An adjustable stop plank for a power tool having a work surface, the adjustable stop plank ~~further~~ comprising:

 a drive mechanism connected to the stop plank for continuous adjustment of [[the]] an angle of the stop plank with respect to the work surface within a predetermined range of angles; and

an actuator for operating the drive mechanism to adjust the angle of the stop plank such that rotational displacement of the actuator correlates with angular displacement of the stop plank.

9. (Previously Presented) An apparatus according to claim 8, wherein the drive mechanism has an interface with at least one tooth that allows the stop plank to be moved to different angles with respect to the work surface.

10. (Previously Presented) An apparatus according to claim 8, wherein the drive mechanism includes components having a meshed interface which cooperate to adjust the angle of the stop plank.

11. (Previously Presented) An apparatus according to claim 8, wherein the drive mechanism has a threaded interface that allows the stop plank to be moved to different angles with respect to the work surface.

12. (Previously Presented) An apparatus according to claim 11, wherein the threaded interface comprises a worm gear having a worm driven by the actuator, the worm engages a wheel connected to the stop plank so that movement of the actuator will adjust the angle of the stop plank.

13. (Previously Presented) An apparatus according to claim 8, wherein the actuator is hand operated to adjust the angle of the stop plank.

14. (Currently Amended) An apparatus according to claim 11, wherein the actuator is a hand operated actuator [[is]] including a spindle movable in a clockwise

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direction to adjust the angle of the stop plank in a first direction and movable in a counterclockwise direction to adjust the angle of the stop plank in a second direction.

15. (Previously Presented) An apparatus according to claim 8, further comprising at least one stop to obstruct movement of the stop plank beyond at least one predetermined angle.

16. (Previously Presented) An apparatus according to claim 15, wherein the at least one stop comprises an adjustable hinderer which may be adjusted to obstruct movement of the stop plank beyond the at least one predetermined angle.

17. (Previously Presented) An apparatus according to claim 15, wherein the at least one stop comprises an adjustable bolt that obstructs movement of the stop plank beyond a predetermined angle.

18. (Previously Presented) An apparatus according to claim 8, wherein the actuator may be rotated in a clockwise or counterclockwise direction to make micro-adjustments to the angle of the stop plank.

19. (Previously Presented) An apparatus according to claim 8, further comprising a display for indicating the current angle of the stop plank.

20. (Previously Presented) An apparatus according to claim 19, wherein the display comprises:

indicia to indicate a plurality of angles for the stop plank; and
an index for indicating on the indicia the current angle of the stop plank.

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21. (Currently Amended) A planar comprising:
~~a base having a workpiece support table and having~~ an adjustable stop plank for positioning a workpiece and a drive mechanism for adjusting the stop plank; and
a display for indicating [[the]] a current angle of the stop plank with respect to the workpiece support table.
22. (Currently Amended) An apparatus according to claim 21 wherein the display further comprises:
indicia to indicate a plurality of angles for the stop plank; and
an index for indicating on the indicia the current angle of the stop plank.
23. (New) An apparatus according to claim 21 comprising an actuator operable to adjust the angle of the stop plank with respect to the support table.
24. (New) An apparatus according to claim 23 wherein the actuator is rotatable and rotation of the actuator results in a corresponding change of the angle of the stop plank.
25. (New) An apparatus having a work surface, comprising:
a stop plank mounted adjacent to the work surface;
a drive mechanism operably connected to the stop plank for adjustment of an angle of the stop plank relative to the work surface; and
an actuator for operating the drive mechanism to adjust the angle of the stop plank.

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26. (New) An apparatus according to claim 25 wherein the drive mechanism includes at least one gear operably connected to the stop plank for adjusting the angle of the stop plank relative to the work surface.

27. (New) An apparatus according to claim 26, wherein the drive mechanism includes a rack and pinion gear set.

28. (New) An apparatus according to claim 10, wherein the components having the meshed interface include a worm gear having a worm driven by the actuator, the worm engages a worm wheel operably connected to the stop plank so that movement of the actuator will adjust the angle of the stop plank.